

Appln. No. 10/721,658  
Filed: November 25, 2003  
Reply to Office action mailed September 25, 2007  
Response filed November 27, 2007

## **REMARKS**

Claims 1-21 are pending in the Application. Claims 1, 2, 6, and 17-21 have been rejected in the Office action mailed September 25, 2007. Claims 3-5 and 7-16 are objected to as being dependent upon a rejected base claim. No claims are amended by this response. Claims 1, 6, and 17 are independent claims. Claims 2-5, 7-16, and 18-21 depend from independent claims 1, 6, and 17, respectively.

The Applicant respectfully requests reconsideration of the pending claims 1-21, in light of the following remarks.

### **Rejections of Claims**

#### **Rejection of Claims 1, 2, 6, 17, 18, and 21 Under 35 U.S.C. §103**

Claims 1, 2, 6, 17, 18, and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kulkarni et al. (US Pat. 6,775,423; hereinafter “Kulkarni”) in view of Chen et al. (US 6,823,432, hereinafter “Chen”). The Applicant respectfully traverses the rejection.

The Applicant respectfully submits that the Examiner has failed to establish a case of *prima facie* obviousness for at least the reasons provided below. M.P.E.P. §2142 clearly states that “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” The M.P.E.P. §2142 goes on to state that “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.”

**Kulkarni and Chen do not teach all limitations of claim 1**

With regard to the rejection of independent claim 1, the Applicant respectfully submits that Kulkarni in view of Chen do not disclose “**a bank order determination unit adapted to employ at least one differential evolution technique** to determine a bank order of updating electronic device memory comprising a plurality of banks; and wherein the **determined bank order** and the difference information **are transmitted to and processed by the electronic device** to update memory in the electronic device.”

The Office Action concedes that “Kulkarni does not disclose a bank order determination unit adapted to employ at least one differential evolution technique to determine a bank order transmitted to and processed by the electronic device to update memory in the electronic devices.” Page 3. However, the Office Action states that Chen does disclose this in the abstract and column 2, lines 11-51.

Chen’s Abstract describes “load distribution across memory banks with constrained access [ ] accomplished using a bank balancer that ensures that data to be buffered is evenly distributed throughout the various banks of the memory structure.” Column 2, lines 11-51 of Chen further expounds upon the Abstract by explaining how keeping track of data to be enqueued and dequeued is useful in load distribution across the memory banks. Chen does not disclose a “determined bank order and the difference information are transmitted to and processed by the electronic device to update memory in the electronic device.”

**Chen teaches away from Kulkarni with respect to claim 1**

M.P.E.P. 2145 (X)(D)(2) states that “[i]t is improper to combine references where the references teach away from their combination.” The Applicants respectfully submit that Chen and Kulkarni teach away from their combination, and hence the combination of Chen and Kulkarni is improper.

For example, Kulkarni’s Abstract discloses a server generating a difference file, and downloading the difference file to another device to update that device’s present image in the flash memory. Kulkarni also discloses that generating the difference file takes into account the fact that various blocks may be dependent on other blocks.

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Column 4, lines 44-65. This is to avoid overwriting a first set of blocks that are needed for generation of a second set of blocks before the second set of blocks are generated.

Chen, however, discloses ensuring even buffering of data "throughout the various banks of the memory structure ... the bank balancer maintains bank depth information for each of the banks ... Once the enqueue and dequeue banks have been determined for an entire memory cycle, or cell period, the bank balancer increments and decrements the physical bank depths corresponding to those banks utilized for enqueueing and dequeuing. The bank balancer then re-sorts the banks such that the change in depth due to the most recent set of memory operations is taken into account during the following cell period." Column 2, lines 13-38.

Accordingly, Kulkarni discloses a static ordering of memory modules by a server as part of a difference file that will be downloaded to and used by an electronic device. Chen, on the other hand, discloses dynamic ordering of memory modules on a single electronic device by that electronic device.

#### **Impermissible to “Pick and Choose” Elements with respect to claim 1**

M.P.E.P. 2141 (II)(B) states that "references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination." This is also supported in case law, "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." In re Weslau, 353 F.2d 238, 241 (United States Court of Customs and Patent Appeals, 1965) (emphasis added).

The Applicant respectfully submits that the Office Action is impermissibly choosing a portion of the Chen reference by asserting that Chen "discloses a bank order determination unit adapted to employ at least one differential evolution technique to determine a bank order of updating device memory comprising a plurality of banks," which is missing from Kulkarni.

However, as discussed above, Chen discloses an electronic device dynamically ordering memory modules to provide even distribution of data, where the memory modules are a part of the electronic device. This is not the same as “a bank order determination unit adapted to employ at least one differential evolution technique to determine a bank order of updating electronic device memory comprising a plurality of banks; and wherein the **determined bank order** and the difference information are transmitted to and processed by the electronic device to update memory in the electronic device.”

**Teaching by Chen is unsatisfactory for Kulkarni’s intended purpose with respect to claim 1**

M.P.E.P. 2143.01(V) states “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”

Chen discloses dynamically ordering an electronic device’s memory modules for even distribution of data across the modules. If Kulkarni were to use this method for updating its flash memory, the data may very well be spread out evenly across various flash memory modules rather than limited to specific flash modules. Accordingly, the updated flash image may be gibberish that may not be useful to any electronic device.

Based at least upon the above, the Applicant respectfully submits that the Office has failed to establish a prima facie case of obviousness, as required by M.P.E.P. §2142, and that the above rejection of claim 1 under 35 U.S.C. §103(a) cannot stand. Accordingly, the Applicant respectfully submits that since claim 2 depends from claim 1, claim 2 is allowable.

Furthermore, the Office Action states that claims 6, 17, and 18 are “rejected for the same rationale as claim 1 above.” Page 4. Accordingly, the Applicant respectfully submits that claims 6, 17, and 18 are allowable. Since claims 21 is dependent from claim 17, the Applicant respectfully submits that claim 21 is also allowable.

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The Applicant believes, therefore, that claims 1, 2, 6, 17, 18, and 21 are allowable, for at least the reasons set forth above, and respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn for claims 1, 2, 6, 17, 18, and 21.

### **Rejection of Claims 19 and 20 Under 35 U.S.C. §103**

Claims 19 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kulkarni in view of Chen, and further in view of Waldin (US Pat. 6,651,249, hereinafter "Waldin"). The Applicant respectfully traverses the rejection. For at least the reasons stated above, the Applicant believes that claim 17 is allowable. Since claims 19 and 20 are dependent from claim 17, the Applicant further asserts that claims 19 and 20 are also allowable.

### **Objection to Claims 3-5 and 7-16**

Claims 3-5 and 7-16 are objected to as being dependent upon a rejected base claim. However, the Office Action states that these claims would be allowable if they are rewritten in independent form including all of the limitations of the base claim and any intervening claim.

The Applicant gratefully acknowledges this option. However, the Applicant asserts, at least for the reasons stated above, that the independent claims 1 and 6 are allowable. Accordingly, the Applicant respectfully submits that the claims 2-5 and 7-16, which depend on claims 1 and 6, respectively, are also allowable.

### **Conclusion**

In general, the Office action makes various statements regarding claims 1-21 and the cited references that are now moot in light of the above. Thus, the Applicant will not address such statements at the present time. However, the Applicant expressly reserves the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

The Applicant believes that all of pending claims 1-21 are in condition for allowance. Should the Examiner disagree or have any questions regarding this

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submission, the Applicant invites the Examiner to telephone the undersigned at (312) 775-8000.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

Dated: November 27, 2007

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